A REPORT
TO THE
MONTANA
LEGISLATURE

INFORMATION SYSTEM AUDIT

Unemployment Insurance Tax System

Department of Labor and Industry

NOVEMBER 2007

LEGISLATIVE AUDIT
DIVISION

07DP-03

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LEGISLATIVE AUDIT DIVISION

Scott A. Seacat, Legislative Auditor
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Chief Deputy Legislative Auditor

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James Gillett
Angie Grove

November 2007

The Legislative Audit Committee
of the Montana State Legislature:

We conducted an Information Systems audit of the Unemployment Insurance Tax System (UIT). The Department of Labor and Industry (DLI) operates and maintains the UIT System to assist in the administration of Montana employer's unemployment insurance tax records and premiums. The focus of the audit was to ensure the UI Section has controls in place to:

- identify and assign appropriate system access.
- calculate and enter yearly ratio changes.
- ensure data is sent and received appropriately.
- ensure a process is in place to request, test, and accept system modifications.

We wish to express our appreciation to DLI for their cooperation and assistance.

Respectfully submitted,

/s/ Scott A. Seacat

Scott A. Seacat
Legislative Auditor

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Appointed and Administrative Officials

Department of Labor and Industry	Keith Kelly, Commissioner
	Dore Schwinden, Deputy Commissioner
	Roy Mulvaney, Unemployment Insurance Division Administrator

Report Summary

Department of Labor and Industry

Since unemployment insurance taxes are the primary source of benefits paid out to Montana's unemployed and due to the reliance the division has on the UIT System, we conducted an audit of the System, policies and procedures in place regarding access to the system, and enhancements made to the system.

Unemployment Insurance is a federal and state funded insurance program designed to provide temporary benefits to eligible individuals. The division maintains and operates the UIT System to assist in the administration of Montana employer's unemployment insurance tax records and premiums.

Audit Objectives, Scope and Methodology

This audit focused on the UIT System's operations including tax calculations and interactions with other systems, as well as the Unemployment Insurance Division's process for granting access to system components and creating modifications to the system. Based on the importance of the UIT System to the management of employer accounts, we addressed the following objectives:

- Verify the UIT System is accurately and completely calculating unemployment insurance tax rates for Montana's businesses.
- Verify transfer of information between systems is complete.
- Verify system changes go through controlled change management procedures.
- Verify controls are in place to limit access to the UIT System.

This audit was conducted in accordance with Government Auditing Standards published by the Government Accountability Office. In addition, we evaluated the control environment using generally applicable and accepted information technology standards established by the IT Governance Institute.

Conclusion

Based on tests performed, interviews and observations with programmers, users and management; the audit objectives have been achieved with the exception of system access. See attached audit report for opportunities for improvements in access control to ensure compliance.

Chapter I — Introduction and Background

Introduction

Unemployment Insurance (UI) is a federal and state funded insurance program designed to provide temporary benefits to eligible individuals. Administrative costs of UI are funded through a federal payroll tax paid by employers. The actual administration of UI is the responsibility of the Unemployment Insurance Division (division) within the Montana Department of Labor and Industry (DLI). Benefits to unemployed workers are paid by UI taxes from Montana employers. The program was designed to not only lessen the burden of unemployment on the worker and the worker's family, but also to help local communities maintain a stable workforce and economy by allowing the workforce to remain in the community during times of temporary unemployment.

During fiscal year 2007, $82,983,728 was collected in UI tax from 37,115 Montana employers. The division received 55,047 claims resulting in 28,151 claimants receiving benefits totaling $76,510,835. More taxes were collected than benefits paid out resulting in an increase to the UI Trust Fund bringing the balance to $259,232,654. During this time, Montana's workforce included 506,385 people of which 493,889 were employed. Montana's unemployment rate as of June 30, 2007 was 2.4 percent.

The division maintains and operates the Unemployment Insurance Tax (UIT) System to assist in the administration of Montana employer's unemployment insurance tax records and premiums. The UIT system was first created in 1991 under the name Montana Automated Contribution (MAC) System and was subsequently operated by the division until the processing of UI was moved over to the Department of Revenue and integrated into the Process Oriented Integrated System (POINTS) in 1999. In 2003 the MAC System was modified to account for federal and state law changes and automation environment changes that had occurred since 1999. In 2004 processing of UI data was transferred back to the Department of Labor and Industry. At this time the project was referred to by several different names including Phoenix, New MAC, and finally UIT.

Since unemployment insurance taxes are the primary source of benefits paid out to Montana's unemployed and due to the reliance the division has on the UIT System, we conducted an audit of the System, policies and procedures in place regarding access to the system, and enhancements made to the system.

Audit Objectives

This audit focused on the UIT System's operations including tax calculations and interactions with other systems, as well as the Unemployment Insurance Division's processes for granting access to system components and creating modifications to the

system. Based on the importance of the UIT System to the management of employer accounts, we addressed the following objectives:

- Verify the UIT System is accurately and completely calculating unemployment insurance tax rates for Montana's businesses.
- Verify transfer of information between systems is complete.
- Verify system changes go through controlled change management procedures.
- Verify controls are in place to limit access to the UIT System.

Audit Scope and Methodology

Testing of the UIT System functionality and controls was conducted through a combination of staff interviews, observation of the UIT processes, and the analysis of the UIT System data.

The division relies on the UIT System to calculate employer's unemployment insurance tax due and to provide and receive information both to and from other information systems.

Section 39-51-1218, MCA, defines the rate schedule used to determine the amount of unemployment insurance tax an employer is required to pay. The rate schedule includes a minimum ratio for each tax schedule, representing the minimum fund level required and adjusted each year to account for unemployment trends.

Our audit work addressed the annual process for updating the ratios in the UIT System for each of the tax schedules. This process includes both manual and system related procedures. The system generates a report providing information which is manually entered into a spreadsheet. Using the statutory guidelines, the spreadsheet calculates the ratios that will be used for the next year. The ratios are then manually entered into the UIT System. We reviewed the system generated report to determine if the report extracts information from the correct table and table fields. We also addressed whether the data represents what is in the system and is not altered in the report. We compared ratios calculated in the spreadsheet to the ratios in the system. We were able to determine the ratios in the system matched those calculated in the spreadsheet.

The UIT System shares information with other systems both inside and outside the department by sending and receiving computer files. The process of sending and receiving files occurs during automated nightly job processing and is monitored by the Department of Administration (DOA) Information Technology Services Division (ITSD). ITSD monitors the log files created during the job processing and notifies Unemployment Insurance Division staff when the log file contains an error. Our audit work addressed the process of preparing data to be sent to other systems as well as data received from other systems, to:

- ensure edit checks are in place to ensure only properly formatted data is loaded into the UIT System.
- ensure data is completely loaded in the UIT System.
- ensure data sent to other systems is complete.

We reviewed the log files from the nightly job processing to identify formatting errors, as well as error messages when a job could not be loaded in the UIT System. We also identified error messages when a file could not be completed or transfer could not be done. Our review of log files also found every process without error indicated it was completed without error. During subsequent reviews of log files showing a job could not be completed, we found the jobs containing errors were fixed and processing was able to be completed. We were able to conclude, due to the review of log files and finding error messages and completion notices, edit checks are in place to ensure data is properly formatted and data is completely loaded in the UIT System and sent to other systems.

We reviewed the agency's UIT System change management procedures. The change management procedures are documented in the division's Information Technology Security Plan (ITSP). The ITSP includes the following sections:

- Submission, Authorization, and Assignment
- Version Control
- Development
- Testing
- Deployment and User Notification

For each of these sections, the ITSP includes the purpose, responsible parties, time considerations, process descriptions (including documentation requirements), process results, and reference controls and procedures for both pre and post conditions.

While observing the division's change control process, we could follow the process from start to finish and see all the changes to the code as required by the request. For each modification we found all the documentation required in the ITSP and verified versions in the program code. Due to our review and observations, we are able to conclude the division has documented change management procedures and the procedures are followed as outlined in the ITSP.

Our audit work included a review of the division's process for managing user accounts including the access privileges assigned. This process is addressed in the following chapter.

This audit was conducted in accordance with Government Auditing Standards published by the Government Accountability Office. In addition, we evaluated the control environment using generally applicable and accepted information technology standards established by the IT Governance Institute.

Chapter II — System Access

System Access

Access to the UIT System is important to meet the business needs of not only the division and DLI, but also other state departments including the Department of Public Health and Human Services and the Department of Commerce. The UIT System operates through interaction with 441 users who are state employees and contractors with a business need to access the system. Access to the UIT System should be granted based on the principle of least privilege (also referred to as the principle of least authority). This principle limits a user's access to information and resources to only those necessary according to the user's job responsibilities. To gain access to the UIT System, division security staff assign a unique login ID to each user. Based on a user's job responsibilities each user is assigned either read only access or update access (giving them the ability to change or update information) to screens within the UIT application. The division is also responsible for limiting those with access to the internal components of the UIT System, including programming code. To ensure access is limited to appropriate levels, we conducted testing on access controls and found the following concerns:

- One contractor had update access not based on their current job responsibilities
- Program code is accessible to terminated programmers
- Screen access used to manually adjust contribution amounts is accessible
- The ability to stop billing for overdue payments within the UIT system is accessible to the user assigned to review its use

Industry standards require a review of all accounts and related privileges to be performed regularly as part of the management of user's accounts.

Contractor Access

DLI policy states that when an individual requires access to the UIT System, they must complete a system access form. The system access form must define why the user requires access, and be signed by the individual's supervisor. Security staff subsequently assess the need and level of access and grants the access to the system.

Update access allows a user to change data. We compared all users with update access in the UIT System with their system access form on file to ensure the level of access granted met their needs based on their job duties. Our review identified one active contractor with update access to a screen providing the ability to change contact information of employers in the system. This access is not necessary to perform their current job responsibilities. This ability could affect the employer and the state when correspondence cannot effectively take place. Security staff indicated this contractor no longer needs this level of access and

it should have been changed. Since being notified of its existence, the access has been limited to read only.

Program Code Access

The production environment is where the current system in operation is stored. Included in the environment is UIT System programming source code and database tables. Access to source code should be limited to current employees whose job duties require the ability to work with these components. Otherwise, the potential exists for unauthorized insertions or deletions to code or database tables, thus changing the functionality of the system and increasing the threat of manipulation, loss, and theft of sensitive data.

We reviewed the list of users with access to the UIT System's source code in the production environment and identified eight users with access. Our review found six of the users were current employees with an identified need for their access. We also identified one user as a terminated employee and one user account entered in error and not belonging to a specific employee. Subsequent review determined no changes to the production code were made using the unaccounted for account or by the terminated account after the user left employment. When asked about the review of access at this level, security staff noted that their access review does not include a review of users with access to system code.

Reconciliation Screen

When unemployment insurance data was transferred from POINTS to the UIT System, the Unemployment Insurance Division was not sure how the data would transfer and how the system's calculations would handle the transferred data. Because of these concerns, the division implemented a component (Reconciliation Screen) allowing a user to manually change an employer's required unemployment insurance tax contribution amount to reconcile in the event the amount was transferred and calculated improperly. Three years later, we determined this component is still active and not being monitored. As a result, users still have the ability to manually reduce or increase an employer's contribution amount.

We notified management this component is still active. Management stated the component is not used and has never been used and did not know why the component is still active. Audit work determined the component was still accessible and six users currently have update access. A report was created to identify any changes made using the Reconciliation Screen. Using this report we were able to verify that no employer tax amount currently in the system had been changed using this screen. Industry standards require software go through a periodic review against business needs, and when business needs no longer require the use of software components, those components should be removed.

Stop Billing

The stop billing indicator is used to stop the system from generating overdue bills. Using the stop billing indicator works two-fold; first, it stops overdue bills from being mailed unnecessarily, and second, the system automatically creates a tickler to remind the user who entered the stop billing in 90 days to revisit the reason for the stop billing indicator. The stop billing indicator is a control the division uses to help mitigate time and communication requirements within section 39-51-1303, MCA. For this reason, the stop billing process is an important risk to consider as part of the division's business process. The division has found it necessary to monitor the use of the stop billing indicator and has assigned the monitoring of its use to one employee. However, the one employee also has the ability to enter a stop billing indicator as part of their job. The employee who monitors the stop billing process should not be able to enter a stop billing indicator. Having both capabilities allows the control to be circumvented.

Summary

Industry standards require requesting, establishing and issuing access; as well as modifying, closing and reviewing access be addressed as part of user account management. Our review found:

- One contractor with update access after the level of access was no longer required.
- Two users with access to system code that should have been removed.
- Six users with access to a system components no longer used or monitored.
- One employee assigned incompatible duties creating and monitoring the stop billing indicators.

RECOMMENDATION #1

We recommend the department:

A. Develop review procedures to identify and remove inappropriate access to the Unemployment Insurance Tax System.

B. Remove the reconciliation component of the Unemployment Insurance Tax System.

Department of Labor and Industry

Department Response

State of Montana

Department of Labor & Industry
Brian Schweitzer, Governor

UNEMPLOYMENT INSURANCE DIVISION
Roy Mulvaney, Administrator

November 15, 2007

Scott Seacat
Legislative Auditor
PO Box 201705
Helena, MT 59620-1705

Dear Mr. Seacat:

Enclosed please find the Department of Labor and Industry's written response to the final report on the audit of the Unemployment Insurance Tax System.

Sincerely,

for Sandy Bay, acting
Roy Mulvaney, Administrator
Unemployment Insurance Division
Department of Labor and Industry

cc: Keith Kelly, Commissioner

Enc.

Information Systems Audit
Unemployment Insurance Tax System
Department of Labor and Industry
November 15, 2007

Recommendation #1:
We recommend the Department:

A. **Develop review procedures to identify and remove inappropriate access to the Unemployment Insurance Tax System.**
B. **Remove the reconciliation component of the Unemployment Insurance Tax System.**

Concur. The department will develop standardized procedures for identifying and removing inappropriate access to the UIT system by 6/30/2008.

The department concurs with removing the reconciliation component after the statute of limitations has passed for reactivating accounts with inactivation dates prior to 2005. We intend to remove this component in 2010. The department has removed update capabilities for those employees and components identified in the audit.